



Ministry of Infrastructure and the  
Environment

# Value creation

## Connecting societal challenges to land management

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## Outline: 5 statements

- Good soil quality is essential for **societal challenges**.
- **Value creation** is a starting point for revitalization of brownfields.
- Value creation can be optimized by **connecting** the revitalization objectives to societal challenges and conscious and sustainable use of the **soil sediment water system** (SSW).
- **Upscaling**: increasing the development area (4D) is increasing solutions and financing options.
- **Land management** is the key to define policy on sustainable use of SSW



## The need for good soil quality

- Why are we working on soil remediation, clean up and reuse?



健康杭州  
HEALTHY HANGZHOU

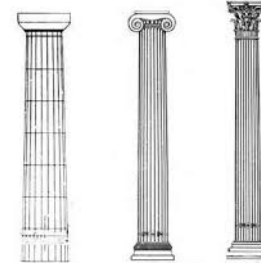


- Barcelona 2013: inventory of current and future (national) research priorities for soil and groundwater :
  1. Water and Food
  2. Urban land
  3. Green industry
  4. Energy and other resources
- Is the agenda changing from soil protection to soil management and sustainable use by current societal challenges?



## Current situation

- Investments in brownfield development are **under pressure**
- Soil and groundwater quality **deteriorates**
- Policies are **sectorial** and mainly focussed on protection and remediation, land management policy lacks
- **Unconscious use** of the SSW can lead to substantial damage
- **Natural capital**, services SSW, are under used (more than NA)
- **Stakeholders** are insufficiently involved





## The necessity of up scaling

- Up scaling to **area approach**:
  - Broader area, more potential solutions
  - Connecting to social challenges and interests, new investors (stakeholders)
  - Problem solving, business case
- Up scaling to **services of the SSW**
  - Soil quality improves by soil value creation
- **Integral** approach
  - Area development and social quality improvement



Balance in use, protection and improvement of soil and groundwater quality: **Land management is the instrument**

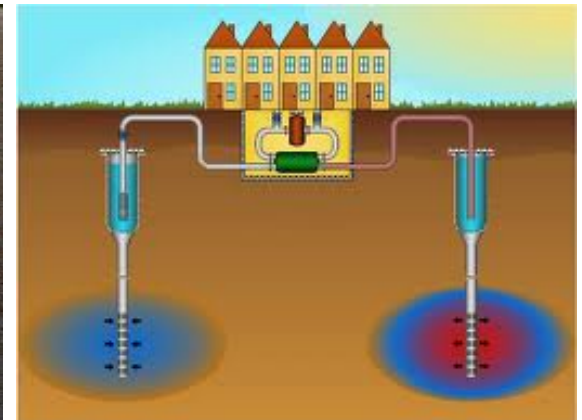






## How to get revitalization started? Show the value for society

- Brownfield revitalization is only possible in case of added value
- Values are worth protecting, sustainable use is value creation
- The SSW system/natural capital contributes to welfare; it supplies resources, it is the basis for food, energy supply, building and construction and production of drinking water, etc.





# Address the benefits: connect the stakeholders

## Contribution to societal tasks

- Resource efficiency
- Safe and sufficient drinking water
- Food security and safety
- Liveable cities,
- Affordable and secured energy supply
- Safely living in a Delta

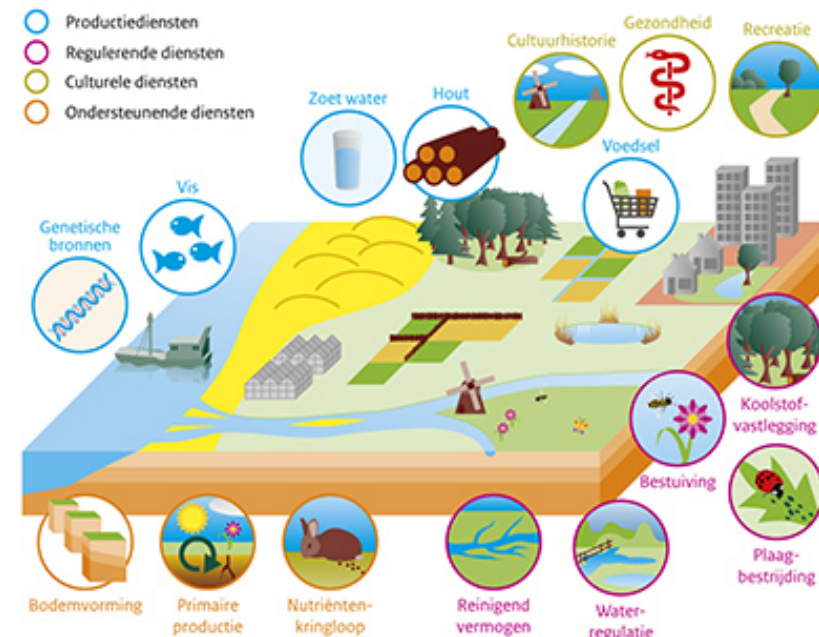
## Stakeholders

- Developers, farmers, energy companies, drink water suppliers, citizens etc.

## Sharing of revenues

- National interests, regional interests, private interests

Voorbeelden van ecosysteemdiensten Nederland





# Policy? Land management and spatial planning

## Transition in policy:

- From subsurface care to deep and broad use of ecosystem services
- From general regulations and prohibitions to tailor made solutions on regional and local level: spatial planning
- From taking the lead to involving the energetic society

**Land management** is the instrument to connect sustainable use of natural resources to societal challenges

## Change towards:

- **Less legislation**
- **More self regulation and initiatives from society**
- **Facilitation of innovations**







# National Policy Strategy Infrastructure & Spatial Planning : Ambition 2040



*Competitive, accessible, livable & safe*



*“Decentralization and simplification”*

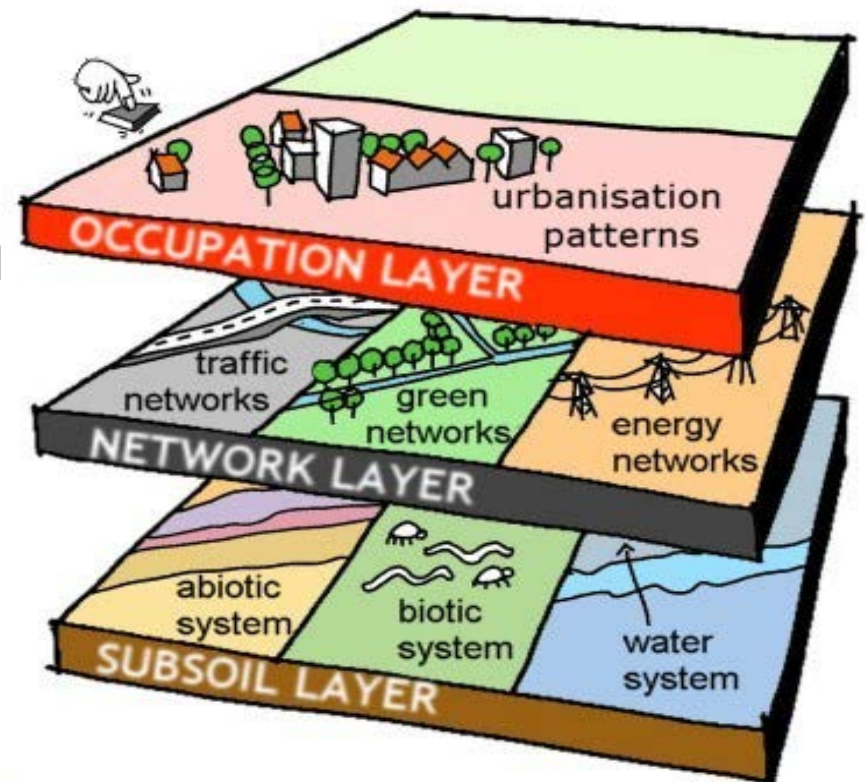


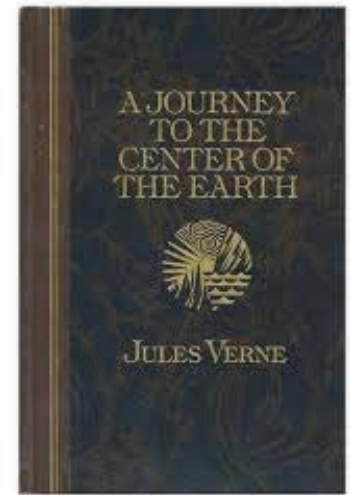
## National interests

1. Outstanding business climate in urban regions
2. Energy network and transition
3. Pipeline network
4. Use of subsurface
5. Robust rail, road and waterway network
6. Better use of existing network capacity
7. Maintenance of existing transport networks
8. Improving environmental quality
9. Adaptation to climate change
10. Preservation of unique cultural heritage
11. Network for wildlife habitats
12. Military sites
13. Careful and transparent planning decisions

# Dutch framework and spatial plan for soil and subsurface: **STRONG**

- On request of energetic society
- Inventory of national policy and interests
- Together with local authorities and stakeholders
- Sustainable and efficient use
- Long term: 100 years
- Energy, (drinking) water, agriculture, efficient use ESS





## Process STRONG

- From 2 to 3 and 4D spatial planning
- System approach (soil water sediment system)
- Spatial and inter governmental coordination
- Development and sharing of information, knowledge and expertise
- Shared assessment framework connecting national, regional and local interests and decisions



- National 4D Spatial plan
- Regional and local 4D spatial specifications



- In accordance with the new integral Environment and Planning Act (2018)
- Incorporation of natural capital in economy and policy by public and private parties (2020)



# Activities STRONG 1

## **Inventory of interests:**

- drinking water and water for food production and nature,
- energy security and transport,
- infrastructure (cables and pipes) and underground storage (CCS, waste)
- water safety (climate adaptation)
- building materials, archaeological remains

## **Inventory of availability and presence SSW services**

## **Inventory of priorities on national scale/ regional responsibility**

## **Baseline studies**

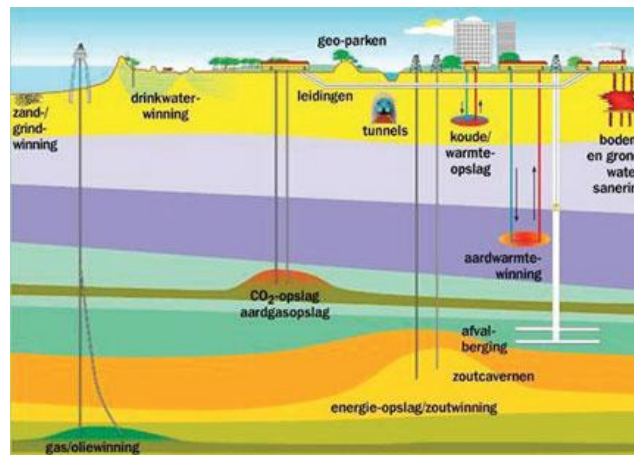
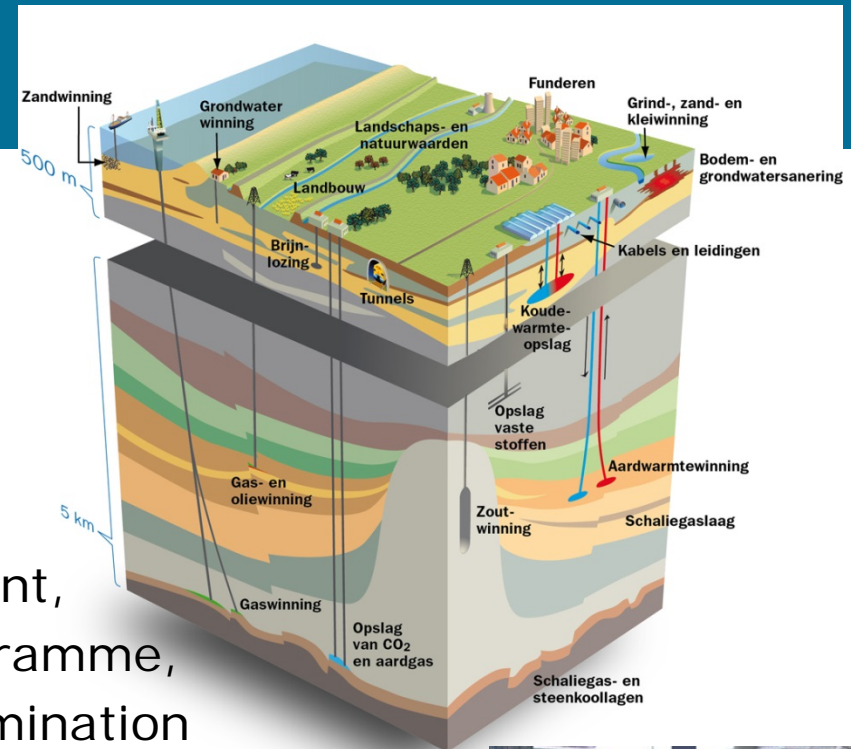
- Process document
- Cost Benefit Analysis
- Environmental Impact Assessment
- Value creation Natural Capital



# Activities STRONG 2

## End result:

- National Spatial plan
- Decision Framework
- Knowledge structure
  - agenda on knowledge requirement,
  - Research and development programme,
  - knowledge carry-over and dissemination programme





## In a Nut Shell

Value creation is a key to brownfield revitalization



This becomes possible by:

- Upscaling your process: area-system-integral approach
- Connecting to societal challenges and input value natural capital
- Connecting to stakeholders for support and financing

Land management is the instrument to connect sustainable use of natural resources to societal challenges and balance sustainable use, protection and revitalization

In the Netherlands a 4D spatial plan for sustainable use of the soil and subsurface is under construction bottom up and in cooperation with stakeholders



# Questions or more information?

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## Thank you for your attention

2015  
International  
Year of Soils

